ABSTRACT OF THE DISCLOSURE

A compact turbo-molecular pump having a high depressurizing capability. A motor for rotating a rotor vane includes an air bearing. The air bearing has a rotary cylinder and a fixed surface surrounding the rotary cylinder. The material of the rotary cylinder has a coefficient of thermal expansion that is smaller than that of the material of the fixed surface. Thus, change in the dimensions of the rotary cylinder is smaller than that of the fixed surface even if the temperature of the air bearing rises during operation of the pump. Thus, the rotary cylinder avoids contact with the fixed surface.